

REMARKS

I. Formal Matters

Claims 1-38 are all the claims pending in the application. Claims 2-20, 22-31, and 35-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

By this Amendment, Applicant editorially amends claims 1, 5, 6, 7, 10, 11, 12, 14 and 15. The amendment to claims 1, 5, 6, 7, 10, 11, 12, 14 and 15 were made for reasons of precision of language and consistency, and do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents. The amendments to claims 1, 5, 6, 7, 10, 11, 12, 14 and 15 were not made for reasons of patentability.

Applicants thank the Examiner for acknowledging the receipt of priority documents submitted under 35 U.S.C. 119(a)-(d). Applicants further thank the Examiner for initialing the information disclosure statements (IDS) submitted on June 10, 2005.

II. Detailed Action

A. Rejection Under 35 U.S.C. § 103

The Examiner rejects claims 1, 21 and 32-34 under 35 U.S.C. 103(a) as allegedly being unpatentable over Tsutsui et al. (U.S. Patent No.: 6,385,181) in view of allegedly Admitted Prior Art (APA). This rejection of independent claim 1 is respectfully traversed as Tsutsui does not teach, or even suggest, all of the elements of claim 1.

For example, Tsutsui does not teach or suggest at least “the detection of a path defined by a pair of a receive beam number as an arrival direction and a path delay as arrival timing with respect to the multipath of each user, [and that] the path detection range at the current time is controlled **based on information on paths detected prior to the current time.**”

Instead, Tsutsui merely describes selecting “beams using delay profiles measured by the searcher.” (See Col. 11, ll. 55-57). The disclosed searcher device of Tsutsui selects the beam as follows. “The searcher includes a matched filter 29a, a averaging unit 29b, a RAM 29c and a path detector 29d. The matched filter 29a and averaging unit 29b extract an [sic] **average signal components** of their own channel contained in **each of the beams B_1 - B_m** input thereto in time-shared fashion, [and] create delay profiles ...on a per-beam basis.” (See Col. 12, ll. 30-36). Next, the path detector 29d detects, on a per-beam basis, **the path for which the signal level is the highest and detects the time delay of each path,** by referring to the delay profiles. (See Col. 12, ll. 36-40). That is, the delay profiles are created for **each of the beams**, and the path detector calculates the signal level and time delay for **each path**. Tsutsui does **not** however, disclose any method for limiting the number of delay profiles that need to be created for the beams, or the number of times that the path detector has to calculate the signal level and time delay for each path. As a result, an increase in the amount of beams in Tsutsui leads to a respective increase in the amount of computation time that is needed.

Conversely, the invention of claim 1 discloses controlling the path detection range at the current time, **based on information on paths detected prior to the current time,** which Tsutsui neither teaches nor suggests. The Examiner cites the APA only for its alleged disclosure

of a user demodulation block, as such the APA fails to cure the deficient disclosure of Tsutsui. Accordingly, even if the two references were combined as the Examiner contends, the combination would not meet all of the limitations of independent claim 1, since the Tsutsui and APA combination would not teach at least controlling the path detection range at the current time, **based on information on paths detected prior to the current time**. For at least this reason, Applicants respectfully assert that claim 1 is patentable over the prior art.

Applicants further submit that the Examiner has not identified a proper motivation for combining Tsutsui with the APA. The Examiner asserts that one of ordinary skill in the art would combine user demodulation blocks of the Applicants' APA with the invention disclosed in Tsutsui "in order to process of retrieving an electrical signal from a carrier signal." However, considering the prior art as a whole, it is respectfully submitted that one of ordinary skill in the art would not have combined the references as asserted in the Office Action.

Tsutsui already discloses a process for retrieving an electrical signal from a carrier signal. Specifically, the above is accomplished using the fingers 24₁-24₅, which multiply the beam selected by the selector by the spreading code, thereby despread the beam and then perform further operations on the resulting despread signal. (See Col. 12, ll. 18-29). The Examiner has failed to indicate why one skilled in the art would replace Tsutsui's process for retrieving an electrical signal from a carrier signal with a different process for retrieving an electrical signal from a carrier signal. The Examiner's proposed combination would require a significant rewiring and modification of the device in Tsutsui without producing any discernable improvement. As a result, Applicants respectfully assert that one of ordinary skill in the art

would not modify the process in Tsutsui for retrieving an electrical signal from a carrier signal with a different process disclosed in the APA.

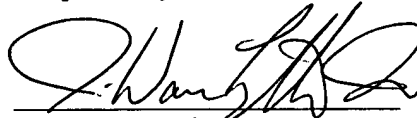
With regard to independent claim 21, Applicants respectfully assert that claim 21 is allowable at least for reasons analogous to those recited for claim 1 above. Since claims 32-34 depend from independent claim 21, claims 32-34 are allowable at least by virtue of their dependency on claim 21.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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